



Understanding policy integration in the EU—Insights from a multi-level lens on climate adaptation and the EU's coastal and marine policy

Duncan J. Russel^{a,*}, Roos M. den Uyl^{a,b}, Laura de Vito^c

^a University of Exeter, United Kingdom

^b IVM-VU University Amsterdam, The Netherlands

^c University of the West of England, United Kingdom

ARTICLE INFO

Keywords:

Policy integration
Climate change adaptation
EU climate policy
EU marine
Coastal policy

ABSTRACT

Integration of relatively new policy tasks like climate adaptation into established higher-level policy fields is insufficiently understood in the academic literature. This paper proposes a framework to evaluate the integration of climate adaptation into the sectoral policy-making of the European Commission, particularly following the publication of the EU Adaptation Strategy (in 2013). The paper uses a framework of micro, meso and macro-level institutional behaviour drawing strongly on new institutionalism perspectives to identify and explain factors enabling and hindering policy integration. It focuses on integration in the coastal and marine policy sector, which is expected to be particularly vulnerable to climate change impacts, and draws from data collected through a document review and interviews with key informants. The findings show that the integration of climate adaptation is still at an early stage. The integration process appears to be largely dependent on institutional dynamics at the EU-level combined with how member states and wider sectoral stakeholders engage with adaptation concerns. In particular, the ambivalence of some member states and a lack of urgency among sectoral stakeholders has hampered the integration of adaptation goals.

1. Introduction

Much of the literature on policy integration, especially in the field of environmental policy integration, focuses on diagnosing and categorising barriers and enablers (cf. [Jordan and Lenschow, 2008, 2010](#); [Persson et al., this issue](#)). Deeper explanations of the underlying dynamics around policy integration processes remain relatively unexplored. In this paper, we aim to provide more insight into the dynamics around policy integration, by further developing an analytical tool based on three analytical levels (i.e. micro, meso, macro) (see [Turnpenny et al., 2008](#)), combined with insights from the literature on new institutionalisms ([Hall and Taylor, 1996](#); [Peters, 2005](#)). To develop and test this analytical approach, we look at the relationship between the new policy field of climate adaptation and the established field of coastal and marine policy in the European Union (EU). In so doing we ask the question: 'how can we explain the process of policy integration of a relatively new cross-cutting policy theme into existing established policy fields in the EU?' This paper feeds into the common analytical framework set out by [Persson et al. \(this issue\)](#) by focusing on policy integration as both a process (how climate adaptation is integrated into EU Marine Policy) and an output (the extent to which climate

adaptation is integrated into EU Marine Policy) – see also [Adelle and Russel \(2013\)](#). Moreover, the deployment of a three-level analysis of barriers and enablers looks at internal factors related to organisational structures and, incentives and problem and policy framing; and to external factors linked to institutional capacity and institutional conditions ([Persson et al., this issue](#)). Crucially, little research has been conducted on climate policy integration at the supra national EU level, so this paper seeks to make a contribution to this knowledge gap by taking an in-depth case study approach.

The marine and coastal sector was singled out as a priority policy sector in the EU Adaptation Strategy ([CEC, 2013a](#)) because of the potential impact of climate change on coastal communities. These impacts include: increased risk of flooding, erosion, storm surges; changes to ocean currents which can affect transport and fish migration routes; changes in sea temperature which can impact marine ecosystems including commercial fish stocks; and salt water intrusion in terrestrial coastal waters which can have negative impacts on agriculture ([Nicholls and Klein, 2005](#); [Hallegatte, 2009](#); [Bosello et al., 2011](#); [Elliot et al., 2015](#)). Climate adaptation therefore concerns how social, economic and ecological systems respond to climate change impacts and how these systems can be more resilient to the negative aspects of these impacts. Policy

* Corresponding author.

E-mail address: d.j.russel@exeter.ac.uk (D.J. Russel).

integration in this area is thus more focused on reducing harm from environmental change compared to more traditional environmental policy integration (EPI) approaches, which are geared more towards environmental protection. Climate adaptation is fairly new on the policy agenda for marine policy compared to areas that have experience of shorter-term climate variability, such as agriculture (Capriolo et al., 2016). It is also a relatively new priority for the EU. Examining the impact of the strategy on the marine and coastal policy sector therefore provides an opportunity to study a ‘live’ policy integration issue.

The remainder of the paper unfolds as follows. First, we elaborate on the approaches used to identify and analyse the factors that impede and enable policy integration, and the methods used to collect data. We then present the findings in terms of the extent to which climate adaptation has been integrated into EU coastal and marine policy. A discussion then follows to explore the deeper institutional dynamics shaping the integration of climate adaptation into EU marine and coastal policy. Finally we conclude and consider the implications for future research.

2. Analytical approach

This paper builds upon the relatively mature literature on EPI and its more recent child concept climate policy integration (CPI) (see Adelle and Russel, 2013; Jordan and Lenschow, 2010; Persson et al. (this issue); Runhaar et al., 2014). A broad review of this literature shows that EPI has been examined from many different perspectives: 1) normative approaches focusing on political commitment and priorities (e.g. Lafferty and Hovdon, 2003; Adelle and Russel, 2013); 2) organisational and procedural approaches focusing on departmental responsibilities, administrative integration instruments and mandates (e.g. Jordan and Lenschow, 2008; Jordan and Schout, 2006); 3) Output-based assessments of integration to see whether or not desired policy outputs and outcomes are achieved (Jordan and Lenschow, 2010); 4) reframing approaches focusing on learning (e.g. Nillson and Eckerberg, 2013; Storbjörk and Isaksson, 2014); and 5), common across many studies, assessments of barriers to integration (e.g. see Lenschow and Jordan 2008). Much of this literature tends to be normatively agnostic towards policy integration or generally in favour of it. There are however critiques of more integrated approaches (e.g. see Page, 2005) to policy making that question whether it is normatively good thing because it is human, organisational, financial and knowledge resource intensive, which can lead to questions over whether the benefits of integration outweigh the costs. This paper, does not seek to make a normative judgement on the merits of policy integration, and instead leans much towards both an output and barriers-based assessment of environmental policy integration, and does so through taking an institutional perspective.

2.1. Measuring degree of policy integration

Given that this study seeks to examine the extent to which climate

adaptation has been integrated into on-going sectoral policy development since the publication of the 2013 EU Adaptation Strategy, it is important to have a measure by which to observe whether climate adaptation has been integrated, or not, to assess any change. For this reason, our analysis adopts a modified measure of integration as put forward by Mickwitz et al. (2009), Brouwer et al. (2013) and Runhaar et al. (2014) (see Table 1). Moreover, we use Lafferty and Hovden (2003) and Runhaar et al.’s (2014) suggestions to distinguish between coordination, harmonization and prioritization of environmental objectives to further operationalize “weighting” and ‘consistency’ indicators in Table 1.

2.2. Explaining policy integration

Much of the existing environmental policy integration literature hints at the importance of the institutional environment in determining the success of or not of policy integration. The literature identifies a number of important institutional variables to explain policy integration, such as processes to exchange information and arbitrate when disputes arise (Jordan and Schout, 2006), inter-ministerial dynamics (e.g. Jordan and Lenschow, 2010), and leadership (Jordan and Lenschow, 2008). We follow the notion that institutions are key to understanding policy and related implementation outputs (Peters, 2005). More specifically, we argue that institutions influence policy integration. This paper therefore draws on perspectives from the institutionalist literature to enable a deeper understanding of institutional factors that can both impede and facilitate policy integration. Institutions can be seen as established or ad-hoc configurations of ‘systems of rules, norms and cultural patterns of meaning that shape the courses of action’ which develop towards achieving common, and often public, goals (cf. Scharpf, 1997). Drawing on Turnpenny et al. (2008) and Turnpenny et al. (2014), we argue institutions affect the integration of cross-cutting initiatives within sectoral decision-making on three different scales: the micro (individual), meso (organisational) and macro (wider societal goals and values). We develop this perspective through the new institutionalist literature (Hall and Taylor, 1996) to better understand how the incentive structures within decision-making institutions might operate at these three different scales to impact upon policy integration (see Persson et al., this issue). The new institutionalisms include different explanatory ideas (mainly organised around rational choice, sociological and historical institutionalism) about why institutions or policies may change (or not) (Hall and Taylor, 1996). Here, we draw on the new institutionalist literature to elaborate on the aforementioned decision making scales. In so doing, we seek to more systematically unpack the often unclear and complex process of policy integration to provide insights into the dynamics of how such a process of policy integration works in practice. We do not expect to find different degrees of policy integration (inclusion, consistency, weighting, reporting) at each of the scale levels studied. Rather, we use the degree of policy integration as a starting point, to be able to indicate what kind of policy integration can be observed as an output.

Table 1
A scale to measure policy integration – specified to climate adaptation.

Indicator	Key aspects which can be observed
<i>Inclusion</i>	<ul style="list-style-type: none"> Climate adaptation objectives and needs identified. Actions identified which anticipate climate change impacts.
<i>Consistency</i>	<ul style="list-style-type: none"> Contradictions between climate adaptation and other policy goals. Efforts to minimize contradictions between climate adaptation and other policy goals.
<i>Weighting</i>	<ul style="list-style-type: none"> Even consideration of environmental objectives in terms of coordination, harmonization or prioritization. Relative priorities of climate adaption compared to other policy aims. Procedures identified to decide relative priorities of climate adaptation compared to other policy aims.
<i>Reporting</i>	<ul style="list-style-type: none"> Explicit weighting of environmental objectives in terms of coordination, harmonization or prioritization. Scheduled evaluation of climate adaptation. Reporting requirements of climate adaptation evaluation (e.g. identification of criteria and indicators, and audiences, constituency or affected stakeholders).

According to our classification, the micro-level is concerned with the individual behaviour of officials working in the separate parts of the European Commission right down to individuals working within the policy sector. Ideas on policy actions (in this case integrating climate adaptation) need transmitters (individuals or groups) to promote the idea, influence behaviour and build coalitions (Oliver and Pemberton, 2004; Béland, 2005). Institutions offer incentives as well as disincentives for certain types of interventions and behaviours. Institutions may also (dis-)incentivise at the micro-level by influencing the availability of human and time resources for individual policy-makers to collect data on climate adaptation and integrate it into sectoral policy (Russel and Jordan, 2009; Turnpenny et al., 2008; Russel et al., 2014; Porter et al., 2015). Moreover, individual cognitive capacities of policy actors mean that decision-makers can only focus on a few core issues at one time (Béland, 2005). This may shape the way in which information on a relative new issue like climate adaptation is readily taken up by individual actors and integrated in their decision-making (cf. ideas around bounded rationality).

From a meso-level perspective, behaviour is driven by (formal and informal) rules, norms, goals and structures of decision-making organisations, which in our case is the European Commission. Among other things, decision-making rules make it possible to coordinate simultaneous activities, avoid conflict and help to navigate unpredictability (March and Olsen, 1989). While, over time, or in times of acute crisis, these rules and routines can change, it is said that they tend to have a “surprising durability” (March and Olsen, 1994, p. 262), which may even give the impression of inertia or path dependency (Smith et al., 2000). But what are meso-level implications of rules for climate adaptation policy integration? Institutional rules and norms can act as external constraints that define the repertoire of actions (Hall and Taylor, 1996; Torfing, 2001) and can thus structure whether climate adaptation policy integration is considered a legitimate course of action (Torfing, 2001). From this perspective, these rules may allow space for, or crowd out, climate adaptation policy integration, depending on how it fits with established practice (Torfing, 2001; Russel and Jordan, 2009). Rules also shape the relations and interactions of the sub-units of an organisation, which may have a set of complementary but also differing and conflicting rules (Richards and Smith, 2002). In the case of the European Commission, the sub-units can be conceived of as the separate Directorate-Generals (DGs), their agencies, or even different teams within DGs. In such situations different informal and formal rules can be contradictory and conflictual, making policy integration difficult (Russel and Jordan, 2009).

At the macro-level, broader historical political developments, the institutional configurations of governments (in our case member states) and political parties (in the European Parliament), combined with politicians and interest groups can structure, influence and shape the behaviour of organisations (meso-level) as well as officials (micro-level). The institutional organisation of a polity, society and the economy can structure behaviour, and promote certain values and ideas over others (Hall and Taylor, 1996; Christensen, 2013). Moreover, institutional organisation at the macro-level can embed power asymmetries allowing some groups disproportionate access to decision-making over others (Hall and Taylor, 1996). This situation can lead to the

creation of constraints and opportunities for climate adaptation policy integration, as the historical sequence of decisions within a sector can structure political debate and related dominant paradigms and values in society (Béland, 2005). In such situations, problems can arise with the integration of climate adaptation into policy-making when that issue is distant from the earlier established dominant policy paradigm, thus creating a cognitive lock on change (Niemelä and Saarinen, 2012). Thus there is a risk of path dependency (Hall and Taylor, 1996; Béland, 2005) whereby climate adaptation goals are rejected to reduce the risk of instability at the macro-level (cf. Hall and Taylor, 1996). This is not to say that change cannot occur at this level. Exogenous events that disrupt the policy sector and wider society can have a destabilising effect on the status quo, which can provide windows of opportunity for new policy directions to be formed (Torfing, 2001; Béland, 2005; Niemelä and Saarinen, 2012).

3. Methods

This study draws on data from detailed systematic documentary analysis and key stakeholder interviews. The documentary analysis examined, among others informal (e.g. minutes) and formal (directives, white papers, work programmes, reports) policy documents and external critiques by NGOs think tanks and the European Parliament (see Appendices A and B to see the full list of documents analysed). The time period for the analysis of documents is from 2010–June 2015, with a few key policy documents going further back. This time period allowed us to observe change from before and after the publication of the EU Adaptation Strategy in 2013. The documents were used to map out the general patterns of policy integration in the EU marine and coasts sector and to measure the level of integration of climate adaptation goals according to the aforementioned criteria in Table 1. The content of the documents were analysed according to the criteria in Box 1.

To fill in gaps in the documentary record and to provide deeper insights into the institutional dynamics affecting policy integration, semi-structured interviews were conducted with key stakeholders (see Richards, 1996) within and outside of the European Commission. In all we approached over 30 people from the European Commission, European Parliament, EEA, science, industry groups and NGOs. However, most people we were reluctant to be interviewed. In total, we consulted 8 officials, through 1-hour face-to-face or skype interviews, from June – September 2015 (see Table 2). While this low response rate means that our findings are not quite as comprehensive as we would have ideally liked, we did manage to speak to the key actors involved in the Commission and the European Environment Agency (EEA) whose insights were crucial in terms of understanding the integration processes. Moreover, our sample also includes business and NGO to provide alternative perspectives with which to triangulate with the European Commission view. Furthermore our sample captured those officials working more explicitly with climate change adaptation in the sector (e.g. a staff member from DG CLIMA, the EU body responsible for climate adaptation) to those working more generally in the sector (e.g. a staff member of DG MARE – responsible for EU marine and coast policy – and a Chair of a fisheries advisory council) to gain different insights to the integration process. Also, the response rate may also be reflective of

Box 1

Analytical criteria for the documentary analysis and themes for the interview questions.

- How climate adaptation objectives are generally integrated in sectoral policies: inclusion weighting, consistency and reporting.
- The factors that specifically shape and influence the process of integrating climate change adaptation goals into sectoral policies (cf. barriers and enablers).
- The impact of factors such knowledge and information upon integration.
- How policy-making actors and networks perceive their role in relation to climate change adaptation.
- How norms and values impact upon how climate adaptation goals are integrated.

Table 2
Consulted interviewees.

Type of actor group	Type of function	Type of interview
European Commission	Staff member from DG CLIMA	Face-to-face
	Staff member from DG Environment (ENV) (on coastal and marine policy)	Face-to-face
	Staff member DG ENV (on biodiversity policy)	Skype
	Staff member DG MARE	Face-to-face
European Parliament	Staff member for Green party fraction	Face-to-face
Knowledge support	Staff member EEA	Skype
Industry	Chair of a Fisheries Advisory Council	Skype
Environmental lobby	Staff member from a national conservation Group (UK)	Face-to-face

the level of prominence climate change adaptation currently has in the sector – something we reflect on in the concluding section. In line with the semi-structured approach taken, the precise questions varied from interview to interview yet remained consistent to direction of the interview themes (Richards, 1996) – see Box 1.

4. Findings

As a yardstick to identify the degree of integration of climate adaptation into the EU coastal and marine policy sector, we analysed how the EU Adaptation Strategy (2013) resonates in the formal EU coastal and marine policy documents. An overview of the formal EU

coastal and marine policy documents is provided in Appendix B. A summary of the timeline of key policy events and developments relevant for integrating climate adaptation in the EU coastal and marine policy sector is provided in Table 3.

The interviewees indicated various perspectives on the question to what extent (and how) climate adaptation is integrated into EU coastal and marine policies (listed in Table 3)? These perspectives indicate some recognition of the relevance of climate change impacts to the sector. To give an example, a policy staff member of DG MARE indicated that climate adaptation is barely considered in marine policy. Whereas a policy staff member from DG ENV indicated that climate adaptation is sufficiently integrated in the Marine Strategy Framework Directive, and to some extent in the Maritime Spatial Planning Directive. Table 4 provides an overview of the state of climate adaptation integration into these formal EU coastal and marine policies.

Our documentary and interview data suggest that the consideration of climate change impacts and possible adaptation actions in fisheries policy is low – see Tables 3 and 4. Nevertheless, some adaptation actions are already taking place though not implicitly linked to climate change adaptation policy integration (e.g. better stabilising vessels during storms and heavy weather, and measures to enable the crew to work safely on the ship in events of high and strong waves). Furthermore, even recent up-dates to the environment-oriented Marine Protected Areas policy and the Marine Strategy Framework Directive do not explicitly refer to climate adaptation or the EU Adaptation Strategy (Elliot et al., 2015). However, the Marine Strategy Framework Directive does include climate adaptation in an implicit way. This Directive requires member states to identify a ‘good environmental status’ (which is

Table 3
Timeline of key policy events (formal introduction) and developments relevant for integrating climate adaptation in the EU coastal and marine policy sector.

Key policy event (formal introduction)	Year	What is the change?	Implications
<i>Common Fisheries Policy</i>	1970	<ul style="list-style-type: none"> A recent update from 2014 only makes small reference to adaptation. In discussion circles around fisheries policy, adaptation appears to be absent. 	<ul style="list-style-type: none"> Not known why reference to adaptation was included in recent Common Fisheries Policy update. Adaptation appears to be a new topic in fisheries sector; in practice some measures are already taking place.
<i>Marine Protected Areas</i>	2005	<ul style="list-style-type: none"> Adaptation is not explicitly considered for Marine Protected Areas. Unknown why adaptation is not yet considered. 	<ul style="list-style-type: none"> Absence of consideration point of concern, as species may migrate and the formal designation status of areas makes it difficult to adapt accordingly. The network structure of Marine Protected Areas is expected to help species adapt. Some member states strongly oppose EU interference relating to planning and environmental conservation.
<i>Marine Strategy Framework Directive</i>	2008	<ul style="list-style-type: none"> Some indicate adaption was discussed from the start of this directive. Others indicate there is no reference to adaptation at all, as the directive only considers ‘direct human stress’ thus excluding indirect impacts from climate change. 	<ul style="list-style-type: none"> Some member states strongly oppose EU interference relating to planning and environmental conservation.
<i>Maritime Spatial Planning Directive</i>	2014	<ul style="list-style-type: none"> Some indication that adaption was discussed from the start of this directive. But no explicit reference at all to adaptation, as the directive only stipulates a plan is made, with no indication of content or process. 	<ul style="list-style-type: none"> Some member states strongly oppose EU interference with matters related to planning. Adaptation is not widely recognised across maritime sector.

Table 4
State of integrating climate adaptation in EU coastal and marine policy sectors.

Indicator	Key aspects which can be observed	
<i>Inclusion</i>	Adaptation objectives identified?	In Marine Strategy Framework Directive to some extent, in the other policies implicitly or barely.
<i>Consistency</i>	Actions to anticipate impacts?	Not explicitly, that is up to the member states.
	Are contradictions identified?	Not explicitly identified in these four policies.
	Coordination, harmonization or prioritization of efforts to minimize contradictions?	Not explicitly identified in these four policies.
<i>Weighting</i>	Relative priority of adaptation?	Not explicitly identified in these four policies.
	Procedures to decide priority?	Not explicitly identified in these four policies.
	Coordination, harmonization or prioritization?	No explicit weighting identified in the four policies.
<i>Reporting</i>	Scheduled evaluation?	To some extent in the Marine Strategy Framework Directive, in the other policies implicitly or barely.
	Reporting requirements?	Not explicitly identified in these four policies.

different from the ‘good ecological status’ from the Water Framework Directive’). Monitoring and reporting is required on the progress of environmental measures to improve the marine environmental status by 2020. The recommended format to do so includes a paragraph on climate change impacts, and the identification of targets and measures to anticipate these impacts. By contrast, the Maritime Spatial Planning Directive (from 2014) explicitly refers to the 2013 EU Adaptation Strategy. Adaptation is mentioned as a tool to create resilient maritime ecosystems (Art. 5.2). The reference in the Maritime Spatial Planning Directive appears to mainly result from the input of DG CLIMA and DG ENV in the “inter-service consultation process” (further explained in the next section).

In addition to these four policy developments, there is an important EU funding programme in place for coastal and marine issues which includes references to climate adaptation. The European Maritime and Fisheries Fund, which is part of the European Structural and Investment Funds, includes climate adaptation, such as the insurance of aquaculture stock with regard to extreme weather events. A European Commission working document prepared for this Fund (CEC, 2013b) included explicitly references the EU Adaptation Strategy. Surprisingly, this measure was only brought up by one interviewee (from the European Commission), which may suggest limited awareness of this fund among those involved in coastal and marine policy.

Having explored the extent of the integration of climate adaptation into EU marine and coastal policy in this section, the next section explores the institutional barriers to, and enablers of, policy integration in the context of our aforementioned analytical framework.

5. Discussion of the institutional barriers and enablers in relation to policy integration

This section discusses the enabling factors for, and barriers to, climate change adaptation policy integration in the EU marine and coasts policy sector across the three different institutional decision making scales (micro-, meso-, macro-level). The key factors identified are outlined in Table 5 and discussed in the reminder of the section.

5.1. Integration dynamics at micro-scale

A key barrier to climate policy integration identified by all of our European Commission facing interviewees – which has implications for all EU policy sectors – was the low level of *staff resources* across the Commission devoted to ensuring the integration of climate adaptation across sectors. In particular, limited staff resources in DG CLIMA acted as a structural constraint to the climate policy integration process. The European Commission’s Adaptation Office in DG CLIMA had fewer than 20 staff members working on adaptation against 200 staff members on

Table 5

Key barriers and enablers observed in the analysed collected data, situated at the micro, meso or macro-level.

	Barriers	Enablers
Micro	<ul style="list-style-type: none"> ● Few staff resources for adaptation in DG Clima 	<ul style="list-style-type: none"> ● Access to training, access to developing knowledge base/infrastructure
Meso	<ul style="list-style-type: none"> ● Unclear policy focus ● Organisational competition 	<ul style="list-style-type: none"> ● Link to funding requirements ● Inter DG consultation
Macro	<ul style="list-style-type: none"> ● Clash with dominant policy traditions ● No overall call for action from member states ● Small wider interest (mitigation more urgent, weak stakeholder demand, no adaptation constituency) 	<ul style="list-style-type: none"> ● Support from member states

mitigation. This has meant limited capacity within DG CLIMA to push and support the integration of climate change adaptation into the policy making of cognate DGs in the Commission, which in the case of marine and coastal policy entails integration within two DGs – MARE and ENV. Such integration is arguably made more difficult by the varied sectoral interests involved (e.g. environmentalists, transport industry, tourist industry, fishing industry, etc.) with different priorities and interests (e.g. environmental protection, access to fisheries, freedom of navigation, etc.). According to interviewees from the European Commission, low numbers of staff members working on adaptation means that they do not have the capacity to effectively influence the policy discourse across DGs and interest groups in favour of more integration. Furthermore, because of their limited capacity, staff members are constrained in their ability to share knowledge of the effects of climate change across policy sectors.

In contrast, access to knowledge development, education, information, insight and training was (repeatedly) indicated by four of our interviewees (from the Commission, the conservation sector and the fisheries group) as a factor which would help to identify risks and vulnerabilities by policy makers to help to create common ground among groups involved to identify possible actions and policies (cf. Russel and Jordan, 2009; Turnpenny et al., 2008; Russel et al., 2014; Porter et al., 2015). One of the interviewees (from the Commission) indicated: “More specific insight in the effects of climate change on specific sectors, and reduced uncertainty in expected impacts and possible actions, will help to convince more actors and member states to address climate adaptation.” To give another example, interviewees from the European Commission indicated that there are working groups in the fisheries sector that consider ecosystem impacts, and one of those groups would be keen to learn more about expected climate change impacts on fisheries. However, in the fisheries sector, climate change impacts and possible adaptation actions are not yet publicly or formally discussed and considered.

5.2. Integration dynamics at meso- scale

The meso institutional level concerns the *goals, structures and rules* of institutions in the context of decision-making. In terms of goals, a point of concern for climate adaptation policy integration according to one of our interviewees (from the conservation sector), is “*that it is not yet clear what the EU policy will be*” on integrated coastal management. To illustrate this issue, according to our interviews (with three DG’s in the commission), the two coastal and marine policy expert groups do not really interact with each other and have very different visions. The expert group for Integrated Coastal Management (to support and facilitate the Maritime Strategy Framework Directive), and the expert working group for the Maritime Spatial Planning Directive are argued to speak past each other as they respond to two different audiences. Also, the wording and associations used in these two expert groups tend to differ which can cause integration problems. For example, the expert group for the Maritime Strategy Framework Directive uses the concept of ‘coastal zone’, whereas the working group for the Maritime Spatial Planning Directive uses the concept of ‘land-sea interactions’. It is not yet clear what these two concepts (i.e. ‘land-sea interactions’ and the ‘coastal zone’) will exactly cover and where climate change adaptation will fit in (if at all). Thus, following our analytical framework, individuals and organizations can act strategically to foster their interests. While *organizational competition* between different parts of the EU can drive integration by pushing things forward in a race to the top, it can also be barrier to integration as it can produce conflicting goals and approaches around the problem of adaptation (also see Russel and Jordan, 2009). In line with this logic, our findings confirm that conflicting relationships arising from different rules, norms, interests and conflicts over concepts and definitions (see the aforementioned example of the differences between expert groups) can hinder policy integration by delaying an agreement on priorities and goals.

By contrast, *structures* at the meso-level can create favourable conditions for climate adaptation policy integration. For example, the explicit reference to adaptation within new or existing legislation (for instance in the proposed text for the Maritime Spatial Planning Directive) can also provide an additional push towards effective climate policy integration. In addition, the formal Commission decision rule of *Inter DG consultation* can help the integration of climate adaptation into appropriate sectors if used in the right way. When the final draft of a directive is developed, it is submitted to the inter-service consultation process. All the DG's can then amend the proposed text, and add, specify or elaborate on aspects. For example, our interviewee from DG MARE indicated that through this inter-service consultation process, DG ENV and DG CLIMA have added consideration of climate adaptation to the proposed text for the Maritime Spatial Planning Directive.^c

Finally, the integration of cross-cutting objectives into funding *rules* and the allocation of funding is a potentially useful meso level institutional development by which to integrate climate adaptation objectives into sectoral policy. In this respect we have observed some developments in the coasts and marine policy sector. An important financial incentive specifically for the coastal and marine sector consists of new requirements for climate adaptation within the European Maritime and Fisheries Fund (CEC, 2013b). These requirements are expected to make sure that beneficiaries of major projects will conduct appropriate analyses to assess the potential impacts of climate change on their projects.

5.3. Integration dynamics at macro-scale

One of the most prominent macro-level integration barriers observed in our research was that climate adaptation goals did *not fit*, or indeed, *clashed with dominant historical policy frames and traditions* (cf. Hall and Taylor, 1996; Beland, 2005; Niemelä and Saarinen, 2012). In line with this, actors' resistance to climate policy integration and climate adaptation goals can be interpreted as emerging from contrasting broader norms, which led to a weaker integration by decreasing Member States' and actors' support or willingness to integrate adaptation concerns into maritime policy. According to the majority of our interviewees in the Commission, this factor was especially the case in the discussion of designating sites for protection as marine protected areas, which clashed with freedom of access norms for commercial maritime transport and fishing.

Furthermore, our findings suggest that the level of Member States' support for better integration is important, thus supporting the argument that a stronger political consensus is needed to ensure the integration of adaptation policies into other environmental sectoral policies. In this respect, an interviewee from the European Parliament suggested that member states had not really pushed the adaptation agenda at the EU level: "If there is no clear call from the member states (...) it's very difficult to force-feed new policies so to say [sic]". According to another interviewee (from an environmental NGO), the importance of existing member state policy structures is shown by German resistance to the new Maritime Spatial Planning Directive because the directive did not match with the specific federal decision-making structure in Germany (the *Länder* structure). Attention to climate adaptation in coastal and marine policies depends significantly on the agenda of the member states as many marine and coastal policy powers remain within their remit. The member states decide what they want to identify as 'good environmental status' (in the Marine Strategy Framework Directive), how ambitious they want to be in their coastal and marine policy, and how far they want to be in addressing climate adaptation. If the member states do not perceive climate adaptation as urgent and push for inclusion, it is unlikely existing directives will be amended, or new ones developed in which climate adaptation is integrated. As one of the interviewees (from the European Commission) summarised: "The main reason why climate adaptation receives relatively little attention in EU marine policy is that the impacts are not

perceived as urgent or problematic." Moreover one interviewee (European Commission) informed us that some member states strongly oppose any policy action from the European Commission especially when it affects marine and coastal planning issues (such as UK and Germany). By contrast, we find some instance where *member state support* has produced positive outputs. One interviewee (from the European Commission) indicated that especially among the Mediterranean member states, there is a shared sense of problem understanding and urgency, as there are clear visible consequences from climate change on coastal and marine issues such as the impacts on fish stocks. This means they support the inclusion of climate adaptation in the Marine Strategy Framework Directive and the Maritime Spatial Planning Directive. However, the interviewees from the European Commission indicate actual implementation of climate change adaptation within these policies will depend on the agenda and perspectives of all the member states.

Climate adaptation also appears to be far away from the established priorities and focus of the debates among non-state stakeholders (cf. Béland, 2005; Niemala and Saarinen, 2012). According to our interviewee from the European Parliament: "If there is no clear demand (from e.g. lobby groups...) to include or address adaptation, there is no clear constituency to follow or check the politicians and policy makers on this process." During the course of our research, several environmental conservation NGO groups indicated they were not involved in discussions or considering climate adaptation. As to why, our interviewee from the conservation sector suggested that these conservation NGOs are probably more oriented towards direct species and habitat conservation, and towards mitigation, as that is a more strategic goal which NGOs can address. To give another example, climate adaptation appears to be a relatively small topic in the field of marine and coastal issues. Issues such as fisheries (management and access to stocks) and aquaculture management, offshore energy (designating sites), and trade routes (access) are far more important issues than adaptation. Also, mitigation was repeatedly indicated as relatively more politically rewarding issue to address across sectors than adaptation, because mitigation is aimed at reducing the source of climate change and is thus more politically salient and obvious in terms of achieving policy goals. Thus, at the time of writing, political attention seems more oriented towards mitigation than adaptation.

6. Conclusions

In this paper we analysed policy integration barriers and enablers at the EU level of decision making, a hitherto relatively unexplored research area. Our observations show that the integration of the EU adaptation strategy (EC 2013) in a sectoral policy such as the EU's coastal and marine policy is still fairly early stage. It is possible that this is a reflection of the fact that climate change impacts have yet to be significantly felt in this sector providing less incentive to engage with adaptation, especially considering the costs (time, money and knowledge) involved with policy integration (see Russel et al., 2014). Overall, we observe some signs of policy integration, but adaptation has come across some significant barriers at different levels. At the same time the enablers identified were more prospective rather than comprehensively observed. Crucially, the analytical framework developed and used in this research has shown how and why institutional dynamics shape policy integration processes and outputs. In particular, it shows how institutional factors internal to the policy system in terms of problem framing and organisational structure and incentives (occurring at the meso and micro levels) might be important to the success of policy integration initiatives (see Persson et al. *this issue*). Notably, macro-level funding rules for the European Maritime and Fisheries Fund seemed to be potentially a more effective enabler than other incentives at the macro (e.g. high-level leadership), meso (e.g. organisational configurations) and micro (e.g. training) institutional levels. However, the analysis also identified factors external to the policy process

occurring as barriers more at the macro-level, particularly around institutional capacity (differences in member state political systems) and political conditions (e.g. stakeholder interest), which might be harder to address. To further test and develop the explanatory potential of the institutional framework used in this analysis, future research could apply it to other multi-level policy contexts, and to the integration of other cross-cutting issues.

Notably this research points towards policy lessons around the institutional enablers of climate adaptation policy integration. That being said, many of the enablers identified are more on the prospective side. There is thus a need for further research to find concrete examples of adaptation integration enablers in different sectors vulnerable to climate change impacts to gain a better sense of the extent to which, how and why they enable policy integration. This is important because this

research suggests that the EU is facing quite entrenched macro-level institutional barriers, which could well be the source of path dependence in the future, thus necessitating the need to better understand the institutional strategies that might better facilitate integration as the case for climate change adaptation becomes more compelling in the future as climate impacts start to materialise.

Acknowledgements

The research leading to these results has received funding from the European Community's Seventh Framework Programme under Grant Agreement No. 308337 (Project BASE). The text reflects only the authors' view and the EU is not liable for any use that may be made of the information contained therein.

Appendix A. Documents analysed

- EC (2012). Progress of the EU's Integrated Maritime Policy. COM(2012)491 final. European Commission, Brussels.
- EC (2013). Climate Change Adaptation, coastal and marine issues. Accompanying the document: An EU strategy on adaptation to climate change. Commission Staff Working Document, SWD (2013) 133. European Commission, Brussels.
- EC(2013). Guidelines on developing adaptation strategies. Commission Staff Working Document, SWD (2013) 134. European Commission, Brussels.
- EC (2013). Adapting infrastructure to climate change. Commission Staff Working Document, SWD (2013) 137. European Commission, Brussels.
- EC (2013). Principles and recommendations for integrating climate change adaptation considerations under the 2014–2020 European Maritime and Fisheries Fund operational programmes. Commission Staff Working Document, SWD(2013)299. European Commission, Brussels.
- EESC (2010). The sustainable development of coastal areas. EESC Opinion, NAT/429-EESC-2010-104. European Economic and Social Committee, Brussels.
- EP and Council (2008). Directive 2008/56/EC (Marine Strategy Framework Directive). European Parliament and Council, Brussels.
- EP and Council (2014). Directive 2014/89/EU (framework for maritime spatial planning). European Parliament and Council, Brussels.
- WWF (2015). From crisis to opportunity: Five steps to sustainable European economies. WWF, Brussels.
- BirdLife International, ClientEarth, Greenpeace, Oceana, Seas at Risk, WWF (2015). Blue Manifesto for Europe's Seas. <http://www.greenpeace.org/eu-unit/Global/eu-unit/reports-briefings/2015/Blue%20Manifesto%20April%202015.pdf>.

Appendix B. Policies analysed

See Table B1.

Table B1

Formal EU policy developments in the coastal and marine sector.

Policy	Year	Lead DG	Main objective
<i>Common Fisheries Policy (CFP)</i>	First in 1970. Several updates, most recently in 2014.	DG MARE	<ul style="list-style-type: none"> Managing European fishing fleets and conserve fish stocks as a common resource; And providing all European fishing fleets equal access to EU waters and fishing grounds.
<i>(Most recent formal reference: Regulation (EU) 2015/812)</i>			
<i>Marine Protected Areas</i>	Gradually since 2005.	DG ENV and DG MARE	<ul style="list-style-type: none"> Implementation of spatial protection measures contributing to networks of protected areas and covering diversity of ecosystems; such as areas stipulated by the Habitats Directive and the Birds Directive, and marine protected areas as agreed by those concerned (shortened from Art.13(4), Marine Strategy Framework Directive).
<i>(falls under Habitats Directive and Maritime Spatial Planning Directive)</i>			
<i>Marine Strategy Framework Directive (Directive 2008/56/EC)</i>	2008	DG ENV	<ul style="list-style-type: none"> Achieve good environmental status in the marine environment by 2020 (Art.1)
<i>Maritime Spatial Planning Directive (Directive 2014/89/EU)</i>	2014	DG MARE	<ul style="list-style-type: none"> Providing a framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies (Art.1.1)

References

- Adelle, C., Russel, D., 2013. Climate policy integration and environmental policy integration: a case of déjà vu? *Environ. Policy Gov.* 23 (1), 1–12.
- Béland, D., 2005. Ideas and social policy: an institutionalist perspective. *Social Policy Adm.* 39 (1), 1–18.
- Bosello, F., Nicholls, R., Richards, J., Roson, R., Tol, R., 2011. Economic impacts of climate change in Europe: sea-level rise. *Clim. Change* 112 (1), 63–81.
- Brouwer, S., et al., 2013. Mainstreaming climate policy: the case of climate adaptation and the implementation of EU water policy. *Environ. Plann. C: Gov. Policy* 31 (1), 134–153.
- Capriolo, A., Campos, I., Hastrup Clemmensen, A., Giordano, F., Iglesias, P., Karali, E., Loučková, B., Mäkinen, K., Mascolo, den Uyl, R.M., Moreira Alves, F., Moricci, F., Ørsted Nielsen, H., Penha Lopes, G., Russel, D., Weiland, S., 2016. Strategies for enhancing policy coherence: mainstreaming adaptation into key-sectoral and development policies. BASE project deliverable 7.1: http://base-adaptation.eu/sites/default/files/D_7.1_final_web.pdf.

- CEC, 2013a. (EU) Strategy on Adaptation to Climate Change (COM(2013) 216 final). CEC, Brussels.
- CEC, 2013b. Principles and Recommendations for Integrating Climate Change Adaptation Considerations under the 2014–2020 European Maritime and Fisheries Fund Operational Programmes. Commission Staff Working Document SWD(2013) 299 Final. CEC, Brussels.
- Christensen, J., 2013. Bureaucracies, neoliberal ideas, and tax reform in New Zealand and Ireland. *Gov.: Int. J. Policy Adm. Inst.* 26 (4), 563–584.
- Elliot, M., et al., 2015. Force majeure: will climate change affect our ability to attain good environmental status for marine biodiversity? *Mar. Pollut. Bull.* 95 (1), 7–27.
- Hall, P., Taylor, R., 1996. Political science and the three new institutionalisms. *Polit. Stud.* XLIV, 936–957.
- Hallegatte, S., 2009. Strategies to adapt to an uncertain climate change. *Global Environ. Change* 19 (2), 240–247.
- Jordan, A., Lenschow, A., 2008. *Innovation in Environmental Policy*. Edward Elgar, Cheltenham.
- Jordan, A., Lenschow, A., 2010. Environmental policy integration: a state of the art review. *Environ. Policy Gov.* 20, 147–158.
- Jordan, A., Schout, A., 2006. *The Coordination of the European Union: Exploring the Capacities of Networked Governance*. Oxford University Press, Oxford.
- Lafferty, W., Hovden, E., 2003. Environmental policy integration: towards an analytical framework. *Environ. Polit.* 12, 1–22.
- March, J.G., Olsen, J.P., 1989. *Rediscovering Organisations: The Organisational Basis of Politics*. The Free Press, New York.
- March, J.G., Olsen, J.P., 1994. *Institutional Perspectives on Governance*. Oslo: ARENA Working Paper 94/2.
- Mickwitz, P., et al. (2009). *Climate Policy Integration, Coherence and Governance*, PEER Report No. 2. Partnership for European Environmental Research, Helsinki.
- Nicholls, R., Klein, R., et al., 2005. Climate change and coastal management on Europe's coast. In: Vermaat, J.E. (Ed.), *Managing European Coasts: Past, Present, and Future*. Springer, Berlin/Heidelberg, pp. 199–225.
- Niemala, M., Saarinen, A., 2012. The role of ideas and institutional change in Finnish public sector reform. *Policy Politics* 40 (2), 171–191.
- Oliver, M., Pemberton, H., 2004. Learning and change in 20th-century British economic policy. *Gov.: Int. J. Policy Adm. Inst.* 17 (3), 415–441.
- Page, E., 2005. Joined-Up government and the civil service. In: Bogdanor, V. (Ed.), *Joined-Up Government*. Oxford University Press, Oxford, pp. 139–155.
- Persson et al. this issue.
- Peters, G., 2005. *The New Institutionalism in Political Science*, 2nd ed. Boomsbury, London and New York.
- Porter, J., Demeritt, D., Dessai, S., 2015. The right stuff? Informing adaptation to climate change in British local government. *Global Environ. Change* 35, 411–422.
- Richards, D., 1996. Elite interviewing: approaches and pitfalls. *Politics* 16 (3), 199–204.
- Richards, D., Smith, M.J., 2002. *Governance and Public Policy in the UK*. Oxford University Press, Oxford.
- Runhaar, H., Driessen, P., Uittenbroek, C., 2014. Towards a systematic framework for the analysis of environmental policy integration. *Environ. Policy Gov.* 24, 233–246.
- Russel, D., Jordan, A., 2009. Joining up or pulling apart? The use of appraisal to co-ordinate policy making for sustainable development. *Environ. Plann. A* 41 (5), 1201–1216.
- Russel, D., et al., 2014. Knowledge use, knowledge needs and policy integration in Member States. BASE Project Deliverable 2.2. http://base-adaptation.eu/sites/default/files/BASE%20Deliverable_2.2.pdf.
- Scharpf, F., 1997. *Games real actors play. Actor-centered Institutionalism in Public Policy Research*. Westview Press, New York.
- Smith, M.D., Richards, D., Marsh, D., 2000. The changing role of government departments. In: In: Rhodes, R.A.W. (Ed.), *Transforming British Government Vol. 2: Changing Roles and Relationships*, vol. 2. Macmillan, London, pp. 146–163.
- Torring, J., 2001. Path-dependent Danish welfare reforms: the contribution of the new institutionalisms to understanding evolutionary change. *Scand. Polit. Stud.* 24 (4), 277–309.
- Turnpenny, J., Nilsson, M., Russel, D., Jordan, A., Hertin, J., Nykvist, B., 2008. Why is integrating policy assessment so hard? A comparative analysis of the institutional capacities and constraints. *J. Environ. Plann. Manage.* 51 (6), 759–775.
- Turnpenny, J., Russel, D., Jordan, A., 2014. The challenge of embedding an ecosystem services approach: patterns of knowledge utilisation in public policy appraisal. *Environ. Plann. C* 32 (2), 247–262.
- Birdlife International, Client Earth, Green Peace, Oceana, Seas at Risk, WWF, 2015. *Blue Manifesto for Europe's seas. Priorities and urgent actions for the European Commission*. Available online at <http://www.greenpeace.org/eu-unit/Global/eu-unit/reports-briefings/2015/Blue%20Manifesto%20April%202015.pdf> (Accessed 25 September 2015).